

The Impact of Virtual Consultations on Primary Care Quality

Campbell et al., JMIR 2023

Introduction

- Virtual consultations have increased significantly post-COVID-19.
- This study reviews their impact on quality of primary care.
- Six IOM quality domains analyzed:
Effectiveness, Efficiency, Safety, Patient-centeredness, Timeliness, Equity.

Study Overview

- Type: Systematic Review
- Journal: JMIR (Journal of Medical Internet Research), August 2023
- 30 studies included, over 5.4 million participants
- Study selection: Virtual real-time care (phone/video) in primary care settings for adults

Table 2. Summary of the main findings.

Domain of quality	Main findings
Efficiency	<ul style="list-style-type: none">• Virtual consultations may reduce the rates of hospitalization and follow-up in secondary care but may increase the rate of follow-up in primary care compared with F2F^a consultations.• Virtual care may lead to lower overall patient spending and be more time-efficient than F2F care.
Effectiveness	<ul style="list-style-type: none">• Treatment delivered virtually is as effective in improving clinical outcomes as F2F care, particularly for psychological or behavior-related conditions treated in primary care.
Safety	<ul style="list-style-type: none">• Virtual consultations conducted via videoconference may have similar diagnostic accuracy to F2F for most conditions.• There is a lack of studies investigating other aspects of safety, such as medication safety incidents, highlighting an important gap in knowledge.
Patient-centered-ness	<ul style="list-style-type: none">• Patients indicate that virtual consultations are more convenient than and are of similar value and quality to F2F consultations, although findings may be at risk of bias.• Virtual consultations may reduce patients' perceived autonomy support compared with F2F care.
Timeliness	<ul style="list-style-type: none">• Virtual appointments may have lower wait times than F2F appointments.
Equity	<ul style="list-style-type: none">• Women are more likely to use virtual consultations than men.• The use of virtual care declines with increasing age.• The impacts of SES^b, location of residence, and ethnicity vary considerably between studies and are likely influenced by numerous contextual factors.

^aF2F: face-to-face.

^bSES: socioeconomic status.

Efficiency

- rates of follow-up visits and hospitalizations
- patient costs
- appointment characteristics (ie, length, attendance, cancelation, and no-shows)
- **(69%) found a positive impact**
- But rates of follow-up visits in primary care: (63%) found a greater need for additional care

- rates of follow-up consultations in secondary or tertiary care (emergency department visits [37], hospitalizations) :
- 43% no change, 43% reduction

- attendance and cancelations : contraversial
- But mental health appointments:
- shorter appointment duration and less cost

Effectiveness

- In general 86% found a non-inferior impact
- Even superior for mental health (anxiety and depression)
- Superior in care of hard-to-heal ulcers non-inferior in smoking/alcohol cessation and weight management

Patient-Centeredness

- Mixed results: positive experience overall
- less time pressure for physicians
- more patient-centric consultations
- Slightly lower support for patient autonomy

Timeliness

- Faster access to care
- removing the barriers of job flexibility and travel times

Equity

- More commonly used by women and younger individuals
- Equity concerns: less uptake among older or disadvantaged populations
- Socioeconomic status : lowest for socially disadvantaged populations

Safety

- Limited evidence on clinical safety (data safety, diagnostic accuracy)
- No physical examination
- Reliance on history

Conclusion

- Virtual care is promising, especially in mental health and addiction treatment
- Comparable effectiveness to in-person care in some areas
- Needs further evaluation for safety and equitable access

Future Directions

- Conduct more research on safety outcomes
- Evaluate long-term effects and cost-effectiveness
- Address digital divide to ensure equitable access